TITUSVILLE AMATEUR RADIO CLUB

NEWSLETTER

SEPTEMBER, 1997

OFFICERS

PRESIDENT: Bud Hughes K4CWG 269-0779 SECRETARY: Marty Coin WD4JNM 264-9447
V. PRESIDENT: Pike Abell W4EPU 269-4208 TREASURER: Clyde Lee K4EOS 267-9375

CLUB INFORMATION

TARC MEETINGS :	**Monthly on 4th Tuesday at 1900 hrs at Jaycee Building.**
TARC NETS:	**VIP - Thursdays at 1000 hrs on 146.910**
	FRIENDSHIP - Thursdays at 1830 hrs. ao146.910
	MOSQUITO - Wednesdays at 1900 hrs on 28.333
TARC REPEATERS:	**VHF - 146.910 and146.970, UHF 444.150**

PRESIDENT'S CORNER

By Bud Hughes K4CWG

If you are looking for bargains and a lot of fun be sure and plan to attend the Greater Daytona Beach Hamfest and Computer Show Saturday, September 27, 1997. The show opens at 9:00 AM and closes at 5:00 PM. Admission is $5.00 at the door, or $4.00 advance. For advance tickets send check and SASE to: DBARA Hamfest, PO Box 9850, Daytona Beach, FL 32120. TARC has three tables reserved at this event and be sure to bring any items you wish to sell and place them on the tables.

Also there is the Daytona Fox Hunt beginning behind Sears (Volusia Mall) at 7:00 PM. John Adams, K4JYX will be the hidee, and you can bet the hunt will be interesting. Give me a call if you would like to attend and we will arrange transportation.

On August 28, Sherry and I loaded our van and embarked on our trip to the Shelby, NC Hamfest. We made it all the way to Edgewater before being overtaken by Warren, AF4EA. Traveling from Edgewater to Columbia, SC was made most enjoyable thanks to 146.52 simplex and the several hours of chit chat between Warren, Sherry and myself. At the Shelby Hamfest (like every year) there were bargains galore. Warren took time out from his visit with his folks in Columbia to make the scene at Shelby. We met up with Darwin, KS4BD and his wife Betty who assisted Sherry and me in the negotiating some really good bargains.

Then on to Hillville, VA Flea Market where more serious wheeling and dealing took place. We left Hillville, found a short cut back home by traveling up the Blue Ridge Parkway/Skyline Drive and through the Shenandoah Valley.

The club's September 23 meeting will be held at 6:30 instead of 7:00 PM. This is our annual family night covered dish supper so bring the family and a covered dish and enjoy the fellowship. (See page 2)

HAPPY BIRTHDAY

SEPTEMBER BIRTHDAYS

SEPT 5 KA4NZM DICK RUFFE
SEPT 8 KF4LTY PAT RENNINGER
SEPT 9 KF4QML KEVIN ZIMMERMAN
SEPT 11 KA4DCA HELEN STRAUGHN
SEPT 14 W4VQB BOB NEDIMYER
SEPT 15 W1BSO MAYNARD CHENEY
SEPT 15 KC4HIQ SHIRLEY SWEATT
SEPT 19 KD4CBV GEORGE BORTLE
SEPT 20 KF4CXZ DEBORAH HARRINGTON
SEPT 21 KE4YQN BUTCH KING
SEPT 23 W9KBV BILL GIBBONS
SEPT 24 KE4JBF JOAN HATFIELD
SEPT 25 KC4GWF MICHAEL HANIOTES
SEPT 27 KF4IGJ CLIFF HILL
SEPT 27 WA4QJK TOM McCALL
SEPT 28 KD4UZS JOE CARTER
SEPT 28 KZ5FG GEORGE FLORES
SEPT 30 KC7QDT ALAN ERICKSON
SEPT 30 W4UTU CLAYTON THOMPSON

PRESIDENT (from page 1)
Melbourne Hamfest (September 13 & 14) tickets are available at $5.00 each from either Clyde K4EOS (267-9375), Les, K4SJC (267-1565) or Bud K4CWG (267-3450) Again this year TARC has purchased tables at the Hamfest, and again this year you are welcome to put anything you wish to sell on these tables. Although it is not required, should you sell your equipment as a result of the exposure, the club would appreciate a donation to help defray the table rental cost. Best 73's

TOWER AND REPEATER UPDATE
By Bud K4CWG

Paul, WD4EBA placed an adapter underneath his 30-40 foot tower. The purpose of this adapter was to permit tilt-over capability. The guy wires had to be loosened and the tower lifted up 12-16 inches to insert the tilt-over adapter and resecure same to the tower base. Thanks to the TARC gang for the muscle power required to achieve this task for our friend Paul.

Charlie, KR4YZ finally received the replacement parts (rotator) and misc. hardware permitting the TARC crew to assist him in his endeavor to be able to point his beam in a 360 degree radius instead of a fixed position as mandated by one of our infamous electrical storms. Again, hats off and thanks to this specially trained TARC antenna taker downers and puter uppers team.

Butch, KE4YQN and his crew removed a tower from the back yard of a new non-ham Titusville resident. One of the facts relative to this tower removal was we did not know the tower had an ample supply of glue at the base which required the expertise of Jo, KE4AEB and his three legged sky hook. Without Jo's assistance we would still be in the pulling, pushing and grunting mode. One more time - many thanks to our team.

If you have turned on and tuned in to TARC's 146.91 repeater I'll bet you have noticed the implementation of the 103.5 sub-audible tone requirement. The purpose and desire of this feature is to cut out or at least reduce the interference from distant 2 meter stations on the same input frequency as our repeater. No one wants this feature but the wear and tear on the equipment leaves no other alternative but to place the repeater in the "sub-audible mode". If your 2

meter transceiver has the sub-audible capability you may program your radio using the 103.5 tone. Then you may access the repeater at any time regardless of the programmed repeater mode.

For those of us who may own a unit which does not have the capability of being "Programmed" there are a couple of ways to access the repeater. If your unit does not have the sub-audible tone capability but does have the touch pad then:

1. Push transmit button and dial 325, release the transmit button then the repeater's digitized voice will say "OK UP". This effectively shuts down the sub-audible tone requirement and as long as you and your party do not let the repeater shut down for more than 10 seconds, you may transmit back and forth without losing the repeater. Remember, immediately after the "OK UP" announcement, press the push to talk button and bingo you are on the air.

2. If you or someone else has dialed the code 325 and the repeater's sub-audible tone is in the off mode (any one with or without the sub-audible tone may transmit) it is not required but you may restore the repeater to the sub-audible tone requirement by dialing the code numbers 325. This time the digitized repeater voice will announce "OK DOWN" and the tone requirement is restored.

GOOD SCROUNGING

From 9/97 QST "Correspondence"

The article "Once Again, A Ham Operator in Command" by Charles Keene in the May 1997 QST reminded me of my one and only encounter with General Curtis LeMay when I was in the Air Force.

I was stationed at the US air base at Bitburg, Germany. As one of two hams there at the time, I had inherited command of the base MARS station. It was equipped with a BC-610 transmitter with a Hallicrafters receiver, but had very little in the way of antennas. The other ham and I decided to erect something that could work a bit of DX; the objective was a four-element 20 meter Yagi ("DX" meant the US, in this case).

We talked the base engineering section into putting up two parallel telephone poles. They managed to install a third tilt-over telephone pole between them. It was fitted with a hinge arrangement constructed by the welding shop. Next came the beam. Enough aluminum was...well..."secured" from the base aircraft maintenance section (with a few promises of phone patches home!). We were on our way!

The result was most impressive. The MARS station itself was located in an inconspicuous prefab building in an otherwise vacant lot next to the base theater. But with the huge beam on its tilt-over base, our station became one of the most visible feature on the base!

General LeMay paid an unexpected visit to Bitburg in the early months of 1953. He spotted our installation right away and decided to give it a formal inspection. I admitted him to the station, saluted smartly, and proceeded to give him a guided tour. All went well until the General became interested in the origins of our 20-meter antenna. Expecting to see my tech sergeant stripes disappear at any minute, I gave him a carefully worded description of just how we obtained the aluminum tubing and built the beam. Little did I realize that General LeMay was a ham. At the end of my discourse, his stern countenance melted into a knowing smile. "Damn good scrounging, Sergeant!". he said as he turned and left.
William H. Allison, W3ICB. Murrysville, PA.

STRANGE!

A man in Johannesburg shot his 49 year old friend in the face, seriously wounding him, while the two practiced shooting beer cans off each other's head

CHECKING POWER STRIPS
From 9/97 QST "Technical Correspondence"

What ham does not need a few of the ubiquitous power strips to accommodate the various pieces of equipment in his shack? Last year, I inadvertently made a shocking discovery about these handy strips. I opened up one in order to attach a mounting bracket, and was surprised to find no ground wires connected to the ground terminals of the outlets! Pricing competition had evidently led to cutting corners. All that connected the socket ground terminal to the power line ground was a single screw securing the socket to the painted enclosure.

True, the screw was fitted with a star lock washer - which would presumably cut through the paint and provide a ground connection - but, of course, the screw could loosen, and no prudent ham would consider such an arrangement acceptable. I checked power strips from several different manufacturers and found similar inadequate grounding arrangements. Each of the power strips I checked sported an Underwriter's Laboratory (UL) label.*

Every electrically operated item in my shack is fitted with its own separate, heavy grounding wire secured to a common ground bus, which may explain why I experienced no problems from any possible open power-grip ground connections. Nevertheless, the situation was quite alarming. It was a chore to open each power strip, connect all the ground terminals and label the strip "Grounds Connected" with a marking pen, but the work gave me some peace of mind.

Here is some good news: I found one power strip, Model ME-6N6 (available at True Value hardware stores) that has all ground terminals connected with heavy wire, and well-soldered together to the line cord ground wire and to the enclosure. (As a plus, the ME-6N6 has built-in mounting tabs, ready for drilling and attaching to your operating bench.)

Because manufacturing methods change, I still open and check each new power strip before I use it, and label it **GROUNDS CHECKED.**

*What does UL listing mean? See the Safety chapter in the 1997 ARRL Handbook, particularly page 9.3. Ed.

ANOTHER TIME - ANOTHER PLACE

ALEUTION ISLANDS, ALASKA. 1943
PIKE ABELL AT HIS ARMY CW POSITION

If you have an intersting picture from your past, please share it with your fellow hams. We promise to take care of it and return it to you.

ANOTHER ALTERNATIVE TO LEO (LOW EARTH ORBIT) SATELLITES

From W5YI Report 8/15/97

Another alternative to LEO satellites is being developed that will bounce communications signals off of long duration flight circling (or hovering) ultra-light aircraft.

The technology called "HALO platforms" (stands for High Altitude Long Operation) - sort of a flying repeater. The still hush-hush concept was briefly mentioned in the May 1997 issue of Sport Aviation, the membership journal of the Experimental Aircraft Association.

The aircraft is being developed for Angel Technologies of St. Louis, by famed aerospace design company Scaled Composites, Inc., of Mojave, CA. The design firm is headed up by the legendary aircraft builder, Burt Rutan.

Rutan, 54, who holds an aeronautical engineering degree from California Polytechnic State University, is renowned for his design of light but strong aircraft built from composites.

He received worldwide attention for designing a strange-looking aircraft named Voyager, which in 1986 made aviation history by completing the first and only non-stop, unrefueled around-the-world airplane flight.

In the August 5 issue of "Air and Space" magazine (published by the Smithsonian) is an interview with Rutan who mentions the aircraft. "I'd say my most intense design work in the last several months has been on a new canard. A very graceful, high-altitude airplane that will provide and do a lot of the missions that these U-2 like airplanes would do. Telecommunications missions and so on. This [new] airplane's stall characteristics aren't an issue. It's an airplane that will always be professionally flown by two pilots. I did it for reasons of how you handle these external payloads, which can be large antennas, and how they have to look under the airplane when you bank."

When asked "Are you at liberty to say who you're designing this latest canard aircraft for?" he said:

"One of [them] is the Angel Corporation, who's developing telecommunication services in which their payload is a large antenna that looks down upon many thousands of subscribers and provides Internet and cellular-phone services, for example."

The Angel Corporation has a website (http://www.angelcorp.com) but you need a password to get past the front door. There is an artist's conception of a weird four-winged aircraft with two tails at the opening page of the webside.

Four aircraft will circle (or hover) over a given area at 65,000 feet for as long as 18 hours to provide "service" to an area 120 miles across. A large radome-like payload suspended under the aircraft fuselage serves as a transponder for telephone and broadband multi-media LMDS (Local Multipoint Distribution Service). Spectrum will be auctioned at year end. One hundred HALO's in the air at the same time can cover most areas in the continental United Sates.

Angel Technologies anticipates a large international market - especially to areas where it is too expensive or not feasible to string phone lines.

According to Sport Aviation, the HALOs will be certified and produced in a new 112,000 sq. ft. facility (to be known as "Scaled Technology Works") in Montrose, Colorado which is in the final stages of completion.The telecommunications use of HALO aircraft while technically interesting, is not the real reason Burt Rutan is going all out on the aircraft. The St. Louis based "X Prize Foundation" has announced that 10 teams have

registered to compete for a $10 million prize in the first private race to space.

Flight vehicles have to be privately financed and built. Entrants cannot use a launch vehicle substantially developed under a government contract or grant nor may they be funded by any tax-supported entity. (See http://www.xprize.org)

"Could you shed some light on your plan to participate?" Rutan was asked. "This race is extremely important and interesting, because I think it can [lead to] flight out of the atmosphere - just what the barnstormers opened up to flight in the atmosphere. It won't be done by NASA. And it won't be done by governments, and it won't be done by industry. It will be done by the barnstormers of space. That's what will let the common man fly out of the atmosphere. I think even suborbital flights - where you have 3 to 5 minutes of weightlessness - will be so much fun that it will be a profit-making tourism business. I have structured a plan, and a preliminary design, and a unique way at addressing the factors that make rockets dangerous, and eliminating those dangers. And if those guys put that money in the bank for the prize-winners to get, I'm going to go after it. Sure, why not?"

SEPTEMBER PHASE 3D LAUNCH DOUBTFUL

From 9/97 QST "Happenings"

The September 30 launch of the Phase 3D Amateur Radio satellite was put in grave doubt in late July. As this report went to press, it appeared extremely unlikely that Phase 3D would be able to meet revised mechanical specifications in time to fly on schedule aboard the Ariane 502 rocket.

AMSAT officials were holding out a glimmer of hope that the Ariane 502's schedule would slip just enough to let Phase 3D catch up again, but those chances were considered very slim. In a statement, AMSAT called the turn of events "very bad news."

AMSAT-NA President Bill Tynan, W3XO, said that, in order to include Phase 3D, the Ariane 502's overall launch schedule would have to slip a month or two. But, he said, "if it goes on schedule, we won't go on 502.

The latest setback for the next-generation Amateur Radio satellite came when the European Space Agency (ESA) significantly increased its estimate of vibration levels the Phase 3D payload would be exposed to. The revised estimates meant AMSAT would have to move fast to make structural changes in the Phase 3D spaceframe in order to withstand the anticipated rougher ride.

Phase 3D Project Leader Karl Meinzer, DJ4ZC, told ESA in mid-July that the work required would prevent AMSAT from delivering the spacecraft to Kourou, French Guiana, by the specified August 10 date. AMSAT brought in an independent structural engineer to review the spacecraft's design and construction. Since the report, AMSAT said that "substantial effort has been taking place at the Phase 3D Integration Lab in Orlando, FL" to make and install the recommended structural reinforcements. The cost of making the necessary changes would be in the vicinity of $20.000, Tynan said.

If the Phase 3D payload was not going to be available on time, AMSAT was to supply a "mass simulator" representing the Phase 3D spacecraft by September 5.

Tymam was philosophical about the latest complication for the Phase 3D program. "This is the way engineering works sometimes. It's trade-offs and give-and-take with other people." He said it was too early to speculate on future launch possibilities.

ABELL'S ANECDOTES
By Pike W4EPU

MARTIAN AIR FORCE LOW COMMAND DENY STORIES OF UFO CRASH
Vallis Marineris (Mars Press International)

Sir General-Marshall Rusty Ferrous, the Lesser, a spokesthing for the Mars Air Force denounced, as false rumors, reports than an alien space craft had crashed in the desert outside of Ares Vallis on Friday. Appearing at a press conference today, Sir G-M Ferrous stated that "The object was, in fact, a high altitude weather balloon, not an alien space craft".

The story broke late Friday when a Major, stationed at nearby Ares Vallis Air Force Base, contacted the Vallis Marineris Daily Record with a story about a strange, balloon-shaped object, which allegedly came down in the nearby desert, bouncing several times before coming to a stop, and deflating in a sudden explosion of alien gasses. The story goes on to report that a detachable vehicle emerged from the debris and was roaming in an apparent aimless fashion across the Martian desert.

Minutes later Ferrous contacted the Daily Record telepathically to contradict the earlier reports. He stated that hysterical stories of the roaming detachable vehicle were blatant fiction, provoked by incidence involving swamp gas.

The general public has been slow to accept the Air Forces explanation of recent events. Preferring to speculate on the "other-worldly" nature of the crash debris.

Conspiracy theorists have condemned statements of evidence of "an obvious government cover-up", pointing out that Mars has no swamps. 73s & 88s

AUGUST MEETING
By Marty WD4JNMT

The meeting was called to order at 1905 hours. After the Pledge, moment of silence and introduction of members and guests, Sherry, KF4HTC announced that the annual pot luck supper will be held on September 23, at **6:30 PM** at the Jaycee building. (Note time change from regular meeting). Bring a covered dish and the family and enjoy the food and fellowship.

Pike, W4EPU introduced Mr. Kevin Carter, a pilot for Angel Flight, who, with the aid of great visuals told the club about the ministrations of Angel Flight and their need for volunteers. It was a most interesting and informative presentation.

There were 39 members and guests present. The meeting was adjourned at 2040 hours.

TREASURER'S REPORT
By Clyde Lee K4EOS

Balance Forward From 1996	5703.59
Deposits Year To Date	4462.96
TOTAL INCOME	**10166.55**
Expenditures	6368.77
BALANCE AS AT 08/31/97	**3797.78**
FEMA Escrow	2363.75
BALANCE-CLUB FUNDS	**$1434.03**

SEPTEMBER 23, 6:30 PM
POT LUCK SUPPER
BRING COVERED DISH
BRING FAMILY

MEMBERSHIP UPDATE

KE4YQB MIKE PALM

Total membership: 271 (199 regular, 66 family, 6 honorary)

NEW MEMBERS: KE4TVV WILLIAM ENGLAND
WA4BWE TOM RUDGE

RENEWALS:
KE4AUA LARRY BRUETT
KF4CDK WILLIAM BLUM
KF4IGP JOANNA BLUM
AC4DY TOM BURNS
W4GMW NEAL CRANSTON
KE4MXG CARL LINEBAUGH
KE4MXH MARILYN LINEBAUGH
AD4NA TOM NGUYEN
KE4BBG TOYIA NGUYEN
KO4NQ FRENCHY POULIN
KE4BBI PENNY POULIN
WB4RIS JIM ROBINSON
KD4TLS BEN MCMAHAN

HAMFESTS:

09/13-14	Melbourne
09/21	New Port Richey
09/27	Sunrise
09/27	Daytona Beach
10/11	Tampa
10/18	Starke
10/18-19	West Palm Beach
10/24-25	Miami
11/01	Sorrento
11/08	Titusville
11/8	Port St.Lucie
11/15-16	Miami Hamboree
11/22-23	Tampa
12/6	Okeechobee
12/6	Ocala
12/13	Lake City

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